

RECORD OF TELEPHONIC INTERVIEW

A telephonic interview was conducted between the Examiner and Applicants' representative on January 26, 2006. The rejection under 102(b) was discussed, in particular with respect to Claim 1 and Claims 3-4. The Examiner tentatively agreed that Runas does not appear to anticipate recited structures, but would need to further review the rejections subsequent to applicants' written response. In particular, with respect to Claims 3 and 4, the Examiner indicated that it appeared that Runas was read too broadly. The Examiner indicated that he would contact applicants' representative telephonically prior to issuing another Office Action in order to facilitate completion of the Examination of the application.

REMARKS

1. Rejections under 35 U.S.C. §102

The Examiner has rejected Claims 1-6, 8 and 12-17 under 35 U.S.C. §102(b) as being anticipated by Runas (U.S. 5,506,810). Applicants respectfully disagree.

Claim 1 (and similarly Claim 15) recites:

A memory controller, comprising:

an access control circuit for providing control signals to a memory, whereby rows of said memory are selected for access, and wherein said access control circuit has a selectable page mode for controlling a held-open state of a selected row within said memory after an access is complete; and

a counter circuit coupled to said access control circuit for counting consecutive accesses to said selected row and further coupled to a control input of said access control circuit whereby said selectable page mode is set in conformity with a result of said counting, whereby an average latency of said memory is reduced.

Runas does not disclose all of the recited elements in their recited arrangement. In particular, there is no control signal provided to a control input of the access control circuit for setting a selectable page mode of a memory controller. Further, counters 209, 212 of Runas are not count control counters at all, but are address counters that provide a consecutive address count to the memory cell arrays when the control circuitry 205 of Runas is in burst mode. (See Runas, col. 5, lines 2-5 and lines 11-17.) Runas uses a stop address (on stop address bus 216) to terminate the burst access when control circuitry 215 detects a match between the column address and stop address (See Runas col. 6, lines 50-52). Although the cited text says the comparison is made between "the count" and the stop address, the previously cited passage at Runas col. 5, lines 11-17, makes it apparent that the count is the actual currently-accessed column address, as the initial column address is loaded into the column counter and then incremented as consecutive columns are accessed. Therefore, Applicants believe that the rejection under 35 U.S.C. §102(b) has been overcome.

Further, with respect to Claims 3 and 4 (and similarly Claim 16), Runas as mentioned above does not disclose counting a number of accesses and then holding a row open for the counted number of accesses and also does not disclose a second counter for counting a number of access that another row is selected. Nor does Runas disclose the subject matter of Claim 5 (and similarly Claim 17), in which the first counter value is validated by the second counter value using a control logic.

2. Rejections under 35 U.S.C. §103

The Examiner has rejected Claim 7 under 35 U.S.C. §103(a) as being unpatentable over Runas. Applicants respectfully disagree.


For the reasons stated above, Runas does not disclose the subject matter of Claim 1 and further does not suggest programming a counter to control a number of cycle for which a row is held open in page mode. Therefore Applicants believe that the rejection under 35 U.S.C. §103(a) is overcome.

Therefore, for all of the reasons stated above, Applicants believe that all outstanding rejections and objections have been overcome.

CONCLUSION

In conclusion, Applicants respectfully submit that this Amendment, in view of the Remarks offered in conjunction therewith, are fully responsive to all aspects of the objections and rejections tendered by the Examiner in the Office Action. Applicants respectfully submit that they have persuasively demonstrated that the above-identified Patent Application, including Claims 1-20 are in condition for allowance. Such action is earnestly solicited. No additional fees should be incurred by this Amendment. However, If there are any fees incurred by this Amendment Letter, please deduct them from IBM Deposit Account NO. 09-0447.

Respectfully submitted,



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